1731

ATTORNEY DOCKET NO.: KCX-120 (14300)
03768/09314

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Jimenez, Graciela et al.	Group Art Unit: 1731
Serial No.: 09/734,097	Examiner: José A. Fortuna
Filed: December 11, 2000	Deposit Account: 50-1196
For: Opacity Enhancement of Tissue Products With Thermally Expandable Microspheres	

CERTIFICATION OF MAILING UNDER 37 C.F.R Section 1.8 (a)

Assistant Commissioner for Patents
Washington, D.C. 20231

I hereby certify that the attached correspondence comprising:

1. Request for Reconsideration (8 pages).
2. Return postcard.

is being deposited with the United States Postal Service, with sufficient postage, as first class mail in an envelope addressed to:

Assistant Commissioner for Patents
Washington, D.C. 20231

on November 1, 2002

Melinda Moore Neal
Administrative Assistant to Neil C. Jones

ATTORNEY DOCKET NO.: KCX-120 (14300)
03768/09314

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

#8/BM 11-7-02

Applicant: Jimenez, Graciela et al.	Group Art Unit: 1731
Serial No.: 09/734,097	Examiner: José A. Fortuna
Filed: December 11, 2000	Deposit Account: 50-1196
For: Opacity Enhancement of Tissue Products With Thermally Expandable Microspheres	

REQUEST FOR RECONSIDERATION

Assistant Commissioner for Patents
Washington, D.C. 20231

Dear Sir:

In response to the Final Office Action dated August 13, 2002, please reconsider the rejections of the claims in light of the following arguments, and allow the pending claims. The present request for reconsideration is submitted within three months from the mailing of the Office Action.

ARGUMENTS

In the Final Office Action dated August 13, 2002, the Examiner again rejected claims 1-17 under 35 U.S.C. § 103(a) on grounds set forth in a prior Office Action, paper number 5. In that Office Action, the Examiner rejected all the claims as obvious over U.S. Patent No. 4,619,734 to Andersson ("Andersson"), in view of U.S. Patent No. 3,293,114 to Kenaga et al. ("Kenaga") and of the technical paper "Expancel Microspheres in paper," Technical Bulletin No. 13. However, in the Final Office Action,

the Examiner asserts that Technical Bulletin No. 13, a document that is not dated, is not used as a secondary reference to combine with the primary reference but rather as "evidence to a fact." We understand the Examiner's comment as referring to an alleged capacity of the microspheres to inherently increase paper opacity. We will show below that this statement is an overgeneralization. We understand also that the technical bulletin cannot be used as a secondary reference to support a rejection based on obviousness. Thus, we interpret the Examiner's rejection as meaning that the present invention is obvious in view of Andersson alone or in combination with Kenaga. For the reasons discussed below, Applicants respectfully disagree with the Examiner's conclusions and, respectfully, request the Examiner to withdraw the rejection and allow the patent to issue.

Specifically, in paper number 5, the Examiner rejected claims 1-4, 11-12, and 16, asserting that Andersson teaches a tissue paper having 1 to 10% by weight of expandable microspheres that are added to the furnish, at the wet end of the papermaking process, to increase bulk. Per the Examiner, Andersson teaches multi- and single-layered tissues, but only exemplifies a three-layer product. The Examiner alleges that although "[t]he bulk of the exemplified products is usually greater than 4 cm^3/g . . . one of ordinary skill in the art would recognize that the bulk of a single-layered product would be less than a multi-layered product for the same raw materials and papermaking conditions and that the bulk can be adjusted to required level(s) if so desired." (Emphasis supplied). Furthermore, while admitting that Andersson is silent with respect to the opacity of the paper, the Examiner argues that since Kenaga *et al.* and Technical Bulletin No. 13 teach the use of expandable microspheres to increase

paper opacity, the tissues taught by Andersson would inherently have an increased opacity. Applicants respectfully submit that the Examiner misinterpreted the teachings in Andersson and misapplied those in the technical bulletin.

As Applicants stated in their May 22, 2002, response to the earlier Office Action, Andersson does not merely exemplify his teachings with products having bulk greater than 4 cm^3/g. His teachings are paper products having bulk greater than 4 cm^3/g. To wit, Andersson characterizes his invention as high "bulk paper" products. *See, e.g.,* title, abstract, column 1, lines 1-3, and independent claims 1 and 6. Andersson defines "high bulk" paper products as products having bulk values "of about 4.0 m^3/kg x 10-3 [*i.e.*, 4.0 cm^3/g] and above." Andersson, column 6, lines 62-64. Thus, although Andersson teaches single-layered tissues, the single-layered tissues must still have bulk about 4.0 cm^3/g or above to be within the scope of Andersson's teachings. In short, Andersson does not teach tissue products with bulk values of about 3 cm^3/g or less as in the present invention.

Andersson also does not motivate one skilled in the art to produce tissue products of bulk values about 3 cm^3/g or less as those claimed in the present invention. Andersson's stated goal is to produce high bulk tissue paper, *see e.g.,* Abstract, and to increase bulk Andersson teaches to add microspheres to the paper furnish. Furthermore, as shown in the examples in Andersson, the starting material used is already above the range claimed in this invention. *See, e.g.,* Table I wherein bulk at 0 % added microspheres is 4.09 cm^3/g.

The Examiner rejects, as unconvincing, Applicants' argument that Andersson, alone or in combination, does not motivate one of ordinary skill in the art to add

microspheres to the paper furnish. The Examiner comments that "one of ordinary skill in the art would have reasonable [sic] expectation of success if tissues of lesser bulk is [sic] produced with Microspheres particles taught by the reference." Applicants cannot understand this comment that appears to suggest that microspheres should be added to decrease bulk.

Furthermore, Andersson does not teach tissue products with bulk values of about 3 cm^3/g or less and that are opaque. As the Examiner admits, Andersson is silent as to the opacity of the paper. The Examiner, now, appears to assert that the addition of microspheres, motivated by other reasons such as increasing bulk, would have inherently increased the opacity. As taught in the present Application at page 10, lines 10-17, however, the addition of expandable microspheres does not inherently result in an opacity increase. To the contrary, as stated in that part of the Application, certain high basis weight fibrous materials show a decrease rather than an increase in opacity when microspheres are added to the fiber furnish. Andersson does not address the issue of opacity and, does not teach or suggest whether the addition of microspheres increases or decreases the opacity of the product claimed therein. Thus, a person with ordinary skill in the art was left, at the time of the present invention, without any guidance or motivation to add microspheres to gain an opacity increase.

In addition, the Examiner failed to show any suggestions in any of the cited references to combine the teachings in Andersson with those in the other reference (Kenaga et al.). The Examiner only states that an increase in opacity would have inherently resulted from the addition of microspheres to tissue paper. Furthermore, even if the references were to contain any suggestions to combine their teachings, the

combined product would still not have a bulk value of about 3 cm^3/g or less, as required by the present invention. Thus, even if one of ordinary skill in the art had been led to combine the references, the combined references would still lack the claim limitation of a "bulk value of about 3 cm^3/g or less". Therefore, the references, even if combinable, do not make the invention obvious under section 103 because all the limitations of the claims are not present in the combined art case cites. The prior art reference or combination of references must teach or suggest all the limitations of the claims. *In re Wilson, 424 F.2d 1382, 165 U.S.P.Q. 494 (C.C.P.A. 1970).*

Consequently, Applicants respectfully submit that the present invention is patentably distinct over the references cited by the Examiner, and request the Examiner to reconsider the rejection of Claims 1-4, 11-12, and 16.

In addition, the Examiner rejected dependent claims 5-10, 13-15 and 17 as obvious in view of Andersson alone or, in one specific case, in combination with an additional reference. Applicants disagree.

Specifically, in rejecting dependent claims 5 and 13, the Examiner asserts that Andersson teaches tissues with grammage between 25 to 30 gsm. However, as discussed above, Andersson does not teach or render obvious tissues, of any grammage, having bulk value of about 3 cm^3/g or less that are opacified by adding to the fiber furnish expandable microspheres in an amount of about 1% or less by weight of the furnish. Thus, Andersson does not render these two claims obvious.

Similarly, regarding claims 6 and 14, while admitting that Andersson does not teach tissues having a basis weight of about 14 to 18 gsm as claimed in those claims, the Examiner asserts that Andersson only exemplifies three-layered tissues and that

"one of ordinary skill in the art would recognize that the grammage of single layered tissue would be less than a three layered one." Furthermore, per the Examiner, U.S. Patent No. 5,129,988 to Farrington, Jr. teaches single layered tissues within the claimed range. Thus, the Examiner concludes, the single-tissue product suggested by Andersson would have grammage within the claimed range with only minor and obvious modifications. However, as discussed above, a modification of the Andersson's product would not lead to the paper product of the present invention, i.e., one having a bulk value of about 3 cm^3/g or less that is opacified by the addition of microspheres. Thus, Andersson does not render these two claims obvious.

Regarding dependent claims 7 and 8, the Examiner asserts that Andersson teaches the use of hardwood and softwood fibers. Andersson, however, does not teach the use of recycled fibers, Kraft fibers, or fibers containing sulfite as required by claim 8 of the present Application. Furthermore, claims 7 and 8 require the use of those materials in a process for forming tissue products having bulk values of 3 cm^3/g or less, according to a method that adds to the fiber furnish thermally expandable microspheres in an amount of about 1% or less by weight of the furnish. Andersson, as discussed above, does not teach or render such a method obvious.

Regarding dependent claims 9 and 15, the Examiner, after admitting that Andersson is silent as to the use of retention aids, asserts that "Technical Bulletin No. 13 clearly indicates that it is necessary to add a retention aid in order to reach sufficient retention of microspheres in fine paper." Thus, per the Examiner, it would have been obvious to use a retention aid in the process claimed in dependent claim 9 and the tissue product claimed in dependent claim 15. However, in the Final Office Action, the

Examiner admits that the technical bulletin is not cited as a reference but as "evidence of a fact," i.e., the allegedly inherent effect on opacity, and cannot be used to support an obviousness rejection. There is nothing in the microspheres that would inherently result in the use of retention aid agents. Furthermore, claims 9 and 15 are dependent on claims 1 and 11, respectively, that are, as discussed above, patentably distinct over the references cited by the Examiner. Thus, Andersson does not render these two claims obvious.

Finally, regarding dependent claims 10 and 17, the Examiner admits that Andersson does not teach the use 0.5% of microspheres, but asserts that the range disclosed in those two claims is the consequence of an optimization process that would have been obvious to a person of ordinary skill in the art. Per the Examiner, Andersson aims to increase tissue bulk and, thus, if the purpose is to opacify the paper, the addition levels would have been less than for just obtaining a bulkier web. Applicants disagree. As shown above, there are no teachings or suggestions in Andersson regarding how to increase or decrease the opacity of a paper product by the addition of microspheres. As Applicants discussed above, depending on the paper parameters, the addition of microspheres may lead to a decrease rather to an increase of the opacity. The person with ordinary skill in the art is without any guidance as to how to optimize the paper opacity. The claimed range is not simply the result of an optimization process. Furthermore, as also stated above, Andersson's tissue is one of "high bulk", a term that Andersson defines as products having bulk values of about 4.0 cm^3/g. As expounded in greater detail above, the paper product of the present

invention has a bulk value of about 3 cm^3/g or less. Thus, Andersson does not render these two claims obvious.

In short, Applicants respectfully submit, dependent claims 5-10, 13-15 and 17 are patentably distinct over the teachings of Andersson. Applicants request the Examiner to withdraw the rejection of these dependent claims as well as the independent claims discussed above.

In summary, in view of the foregoing arguments, we respectfully submit that the rejected claims are patentably distinct over the references cited by the Examiner and meet all other statutory requirements. We believe that the present Application is now in complete condition for allowance and, therefore, respectfully request the Examiner to reconsider the rejections in the Office Action and allow this Application. We invite the Examiner to telephone the undersigned should any issues remain after the consideration of this response.

Please charge any additional fees that may be required to Deposit Account No. 50-1196.

Respectfully requested,

NELSON MULLINS RILEY & SCARBOROUGH

November 1, 2002
Date

Neil C. Jones
Registration No. 35,561

Keenan Building, Third Floor
1330 Lady Street
Columbia, SC 29201
Phone: (864) 250-2260
Fax: (803) 256-7500